

Antibiotic Resistance of Bacteria Isolated From Pregnant Women's Urine in Kashan

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Background & Objectives: Urinary tract infection and emergence of resistant organisms is one of the most significant hygienic challenges during the pregnancy and results in harmful effects to both mother and fetus. Therefore, this research is dedicated to identify the common urinary infection bacteria and develop their antibiotic resistance model.

Methods: This descriptive study was carried out on 558 urine samples pregnant women referring to Kashan Golabchi Laboratory from April 2011 to March 2012. The type of bacteria was determined based on the standard microbiological tests. Then, verification of bacterial resistance and susceptibility to medicines was accomplished using the Kirby Bauer methods according to the CLSI guidelines.

Results: The percentage of urinary infection was 7.16% (40 individuals from 558 total). Acquired bacteria are as follows: *Escherichia. coli* 54%, *Klebsiella* 22%, gram Positive Cocci 16%, *Proteus* 3%, *Enterobacter* 2.7% and other microorganisms 2.3%. The percent of resistance bacteria to antibiotics were: Ampicillin 55.2%, Co-trimoxazole 55.2% and Cephalexin 48.3%. The percent of sensitivity bacteria to antibiotics were: Gentamicin 93.1%, Amikacin 86.2%, Nitrofurantoin 82.8% and Ciprofloxacin 79.3%.

Conclusion: Resistance to antibiotics is increasing in microorganisms. Identifying the urinary infections in order to prevent the later consequences in pregnancy period and after that is a necessary procedure.

Keywords: Bacteria; Antibiotic Resistance; Urine; Pregnant Women